

Statement of Work (SOW)
for the Conversion of the
M901A1 Turret
to the
LAV-AT Turret
NSN 1005-07-000-0770
Configuration
SOW-05-PMOLAV-8J219B-6/1

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1.0 SCOPE. This Statement of Work (SOW) establishes, sets forth tasks and identifies the work efforts that shall be performed by the Contractor (for purposes of this SOW, Contractor is defined as the commercial or government entity performing the conversion) to Convert the Army M901A1 Turrets to the USMC LAV-AT Turret configuration, NSN 1005-07-000-0770, P/N 12357445.

This document contains requirements to perform inspection, test, repair as necessary and mandatory parts replacement as specified in TI 08652-25/1 and DMM 2350-50-2C to convert the M901A1 Turrets to the USMC LAV-AT Turret configuration and Condition Code "A". Condition Code "A" is defined as serviceable/issuable without qualification, new, used, repaired, or reconditioned material which is serviceable and issuable to all customers without limitation or restriction, including material with more than six months shelf-life remaining".

1.1 Background. The Army M901A1 ITV Turret is being taken out of service and the turrets have low operation hours as compared to the current USMC LAV-AT fleet. In general the M901 A1 turrets show less corrosion and lower usage than the USMC LAV-AT Turrets. Conversion and use of the M901A1 Turrets throughout the LAV-AT Turret fleet is intended to increase reliability and Fleet readiness. A total of 110 M901A1 ITV Turrets have been acquired by the Marine Corps. This SOW covers the conversion of a quantity of 91 M901A1 Turrets and will be accomplished through SLEP, OIF and IROAN program funds. The excess 19 M901A1 Turrets shall be used to support turret conversions and Fleet readiness. The M901A1 Turret conversions shall be accomplished using SLEP, OIF and IROAN funding. The breakout of turret quantities between programs is SLEP 26, OIF 56 and FY05 IROAN 9. OIF and IROAN quantities shall be adjusted once FY06 IROAN quantities are identified

1.1.1 Initial SLEP M901A Turret conversions will not have an associated excess USMC turret available for component part use during the M910A1 Turret conversion and IROAN. After converted SLEP turrets are issued/swapped with fleet turrets during FY05 and FY06, excess Fleet USMC turrets shall be returned to the depots for use with subsequent SLEP and OIF M901A Turret conversions.

1.1.2 Current disposition of Army M901 Turrets:

- Maintenance Center-Albany (Special Project Code: PHA)
 - 63 M901A1 turrets were shipped from UDLF
 - 60 M901A1 turrets in storage at MCB
 - 3 M901 A1 turrets under Conversion for IROAN assets
 - 7 excess M901A1 Turrets from 29 Palms (Mar 03)
 - 4 excess USMC Turrets from Camp Pendleton (Mar 03)
- Maintenance Center-Barstow (Special Project Code: PHA)
 - 47 M901A1 Turrets were shipped from UDLF

- 44 M901A1 Turrets in storage at MCB
- 3 M901A1 Turrets identified for IROAN assets

2.0 APPLICABLE DOCUMENTS. The following documents form a part of this SOW to the extent specified. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DoDISS). In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be the superseding requirements.

2.1 Military Standards

MIL-STD-129	DoD Standard Practice: Military Marking for Shipment and Storage
MIL-STD-2073-1D(1)	DoD Standard Practice for Military Packaging

2.2 Other Government Documents and Publications

TI 08652-25/1	M901A1 Turret Conversion Instructions
DMM 2350-50/2C	IROAN for Light Armored Vehicle
TM-08652A-20/3B	LAV-AT Turret
TM-08652A-34/5A	LAV-AT Turret
TM 4750-15/1	Painting and Registration Marking for Marine Corps Combat and Tactical Equipment
SL-4-08652A	LAV-AT Marine Corps Stocklist
TI-8400-14/13	Corrosion Info & Maint Procedures for F/LAV
DoD 4000.25-1-M	Military Standard Requisitioning and Issue Procedures (MILSTRIP)
MCO 4450.14	Joint Service Manual: Storage and Material Handling

Military Handbooks (For Guidance)

MIL-HDBK-61	Configuration Management Guidance
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2.3 Industry Standards

ANSI/ISO/ASQC Q9001-2000

Quality Management Systems – Requirements

Industry Standards (For Guidance Only)

ANSI/EIA-649

National Consensus Standard for
Configuration Management

Copies of Military Standards and Specifications are available from the DOD Single Stock Point, Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, commercial telephone number (215) 697-2179 or DSN 442-2179, or on the Internet at <http://www.dodssp.daps.mil>. Copies of publications and other Government documents required by the contractor in connection with specific SOW requirements shall be obtained from: Commanding General (Code 586), Marine Corps Logistics Command, 814 Radford Blvd., STE 20321, Whse 1121, Albany, Georgia 31704-0321, commercial telephone number (229) 639-5818 or DSN 567-5818. Copies of engineering drawings/documents, Engineering Change Proposals (ECPs), and Requests for Deviation (RFDs) may be obtained by accessing the Joint Engineering Data Management Information Control Systems (JEDMICS). Authorization to access JEDMICS may be obtained by contacting Commanding General, Attn: Configuration and Baseline Data Section, Repository Unit (Code 566-1A), 814 Radford Blvd., STE 20320, Albany, Georgia 31704-0320, commercial telephone number (229) 639-6476 or DSN 567-6476. Access to engineering drawings/documents, ECPs, and RFDs for read purposes only, may be obtained by accessing the Configuration Management Information System (CMIS). Authorization to access CMIS may be obtained by contacting Commanding General, Attn: Logistics Data Systems Branch (C4), 814 Radford Blvd., STE 20323, Albany, Georgia 31704-0323, commercial telephone number (229) 639-6144 or DSN 567-6144.

3.0 REQUIREMENTS

3.1 General Tasks

3.1.1 Contractor shall identify schedule for converting a quantity of 91 turrets (SLEP 26, OIF 56 and FY05 IROAN 9). Schedule shall include numbers of turrets that each Maintenance Center will complete. M901A1 assets shall be transferred as required to support the efforts at each Maintenance Center.

3.1.2 SLEP turret conversions shall be completed by Jun FY05.

3.1.3 OIF turret conversions shall be completed by Dec FY06.

3.1.4 IROAN turret conversions shall be completed in conjunction with LAV-AT IROAN schedule for FY05 and FY06.

3.1.5 The Contractor shall inspect, repair as necessary and convert the M901A1 Turret to the LAV-AT Turret configuration in accordance with TI 08652-25/1 and this SOW. This effort includes corrosion prevention (CPAC) application requirements specified in TI-8400-14/13.

Note: M901A1 Turret Control Cam and Rotary Switch are a different configuration than the USMC parts. These parts must be replaced with the USMC configuration parts.

3.1.6 Turret IROAN shall include:

3.1.6.1 Performing Semiannual Service requirements as specified in TM 08652A-20/3B, Table 2-4 Organizational Preventative Maintenance Checks and Services, and to insure proper adjustment, lubrication and operation of turret components specifically erection arm chains.

3.1.6.2 Launcher Erection Arm Cam Switch elevation and depression limit settings adjustment in accordance with TM 08652A-34/5A, paragraph 6-8.

3.1.6.3 Removal of Turret Armor Plates to facilitate corrosion inspection.

3.1.6.4 Operational checks/exercising of converted turret a minimum of five (5) times (i.e., power up, erect, load, traverse right and left, and stow) after conversion to insure proper operation of turret components.

3.1.7 Pre-Induction Inspection. A pre-induction inspection (LAV-AT Turret LTI) shall be performed to identify the most economical use of M901A1 and USMC turrets. Maintenance centers shall provide recommendations and request authorization for use of USMC turrets that are in better condition than the M901A1 turret from PMOLAV representative at MCA and MCB. Intent is not to blindly dispose of USMC turrets and components if they are in better condition than the proposed M901A1 Turret replacement. Additionally, since there are more M901A1 Turrets available for use than currently required the Pre-Induction Inspection shall be used to identify M901A1 Turrets that shall not be converted.

3.1.8 Turret Final Inspection/Conversion Certification Test. A turret final inspection (DMM 2350-50/2C LAV-AT Turret Final Inspection) shall be performed following conversion and repairs as specified in this SOW and will be considered the Turret Conversion Certification Test. A copy of the final inspection shall be forwarded with the monthly report specified in paragraph 3.1.10.

3.1.9 Turret Identification Requirements. All converted turrets shall have an identification plate, P/N 12357436 applied specifying the turret serial number, NSN, P/N, location of maintenance center, SOW number and date of turret conversion.

3.1.9.1 Turret Serial Number. If present the current turret serial number shall be recorded and used for the converted turret. Turret data plate should be located on the accumulator as shown in SL-4-08652A, Figure 27, Key 15, Item Number 1259. For turrets with missing data plates, a unique turret serial number shall be assigned by the respective depot (MCLB-A-0## or MCLB-B-0##). Turret Serial Number shall be marked in the "SER No." section of identification plate.

3.1.9.2 Location/Maintenance Center. Location/Maintenance Center conducting conversion shall be marked in the "CONTR & MFR" section of identification plate.

3.1.9.3 The date, SOW number, and conversion date (maintenance/repair completion date) shall be marked in the "CONTR NO." section of identification plate.

3.1.10 Reporting. Maintenance Centers through the Maintenance Directorate shall provide monthly reports to PMOLAV to identify number of turrets in process, completed, parts issues and copies of pre-induction and final inspection reports processed during that month. Maintenance Directorate shall specify report format. Scanned/emailed (haltr@tacom.army.mil or raskap@tacom.army.mil or faxed to commercial telephone number (586) 574-5472) copies of the reports are acceptable and shall be sent to PMOLAV, SMT Team, Attn: Ralph Halt/Paul Raska.

3.1.11 Turret Exterior Paint Requirements. Exterior paint requirements shall be Three Color Camouflage Pattern (Brown – Green – Black) (81 turrets) and Tan (10 turrets), reference TM 4750-15/1. Exterior paint requirements shall include removal of dirt, chipped and flaked paint and arresting corrosion noted during IROAN inspection. All Armor Plates shall be removed from the Launcher and Erection Arm to facilitate corrosion inspection. Normal IROAN turret exterior paint requirement shall be the same as the inducted vehicle. SLEP and OIF Turret exterior paint requirement shall be Three Color Camouflage Pattern unless specified otherwise by PMOLAV at the time of turret induction.

3.1.12 Turret Interior Paint Requirements. All turret interior components (SLEP, IROAN & OIF) shall be painted Sea Foam Green to match existing paint scheme. Interior paint requirements shall include removal of dirt, chipped and flaked paint and arresting corrosion noted during IROAN inspection and masking of components as required. Powder coat of components is acceptable.

3.1.13 Repair Parts. Contractor shall insure all 100% replacement parts referenced on Attachments 1, 2, and TI 08652-25/1, page 3, are applied during the conversion process.

3.1.14 PMOLAV Procured Repair Parts. The mandatory replacement parts listed on Attachment 1 shall be procured by PMOLAV and shipped to Maintenance Centers under Special Project Code PHA. Disposition of these parts shall be split equally between the two Maintenance Centers.

3.1.15 Maintenance Center Procured Repair Parts. The replacement parts and material listed on Attachment 2 shall be procured by the appropriate maintenance center to support the SLEP, OIF and IROAN requirements.

3.1.16 Re-Use of Excess USMC and M901 Turret Components. Re-use of the following parts from the excess USMC and M901 Turrets are authorized. All re-used parts must be of the latest configuration, in serviceable condition and pass inspection/test requirements. A listing of parts harvested from the excess USMC and M901 Turrets shall be annotated, marked and attached to the excess turrets.

3.1.17 Control Cam and Rotary Switch. OIF and IROAN M901A Turret conversions can utilize the Control Cam and Rotary Switch from the excess USMC turret that will be removed from service.

3.1.18 Vision Block Covers. OIF and IROAN M901A Turret conversions can utilize serviceable Vision Block Covers from the excess USMC turrets.

3.1.19 W-2, W-9 and W-10 Wiring Harnesses. The W-2, W-9 and W-10 wiring harnesses are considered mandatory replacement for this effort. Due to availability and production lead time serviceable harnesses from the M901A1 and USMC excess turrets can be used if they are of the new configuration (non-potted style connectors) and pass inspection/test requirements. The re-use of these cables is due to the availability and lead-time to procure new assets. As stock becomes available the cables shall become mandatory replacements.

3.1.20 Selective interchange of components from excess M901 and USMC turrets is authorized to assist in the most economical use of all assets.

3.2 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). The Management Control Activity (MCA) (Code 581-1B) will coordinate GFE/GFM requests and maintain a central control system on all government assets in the Contractor's possession. The MCA will forward a GFE Accountability Agreement to the Contractor for signature on an annual basis to establish a chain of custody and identify property responsibilities for Marine Corps assets. The Contractor is to acknowledge receipt of GFM to the MCA within 15 days of receipt. This can be done by mailing a copy of the DD 1348 to Materiel and Distribution Management Department, Distribution Management Branch, Management Control Activity (Code 581-1B), 814 Radford Blvd., STE 20320, Albany, Georgia 31704-0320 or faxing a copy to commercial (229) 639-5498 or DSN 567-5498

3.2.1 Contractor Furnished Materiel (CFM). The Contractor may requisition material as required in performance of this SOW through the DoD Supply System. DoD 4000.25-1-M (MILSTRIP), Chapter 11, provides guidance to Contractors on the requisitioning process. The Contractor's decision to utilize CFM procured from the DoD supply System shall be based upon cost effectiveness, availability of material, and the required completion/delivery date.

3.3 Quality Assurance Provisions. The Contractor shall provide and maintain a Quality System that, as a minimum, adheres to the requirements of ANSI/ISO/ASQC Q9001-2000, Quality Management Systems - Requirements.

3.4 Configuration Control

a. The Contractor shall apply configuration control procedures to established configuration items. The Contractor shall not implement configuration changes to an item's documented performance or design characteristics without prior written authorization. The procedures or materials contained in manuals, standards, instructions or engineering drawings define the item's characteristics. If deemed necessary to temporarily depart from the authorized configuration, the Contractor shall prepare and submit a Request For Deviation (RFD). MIL-

HDBK-61 and ANSI/EIA-649 provide guidance for preparing this configuration control document.

b. The creation and submission of RFDs shall be accomplished using MEARS CREATE software application that resides at a secure website, <https://mears1.redstone.army.mil>. The Contractor shall request user-id and password privileges from the Requiring Office (MCLC, Code 566-1, Albany, Georgia) for the purpose of gaining access to the website. The Contractor shall direct any technical or functional questions concerning usage of MEARS CREATE software to the Requiring Office for guidance. The Contractor shall notify the Requiring Office by electronic mail when completed RFDs are ready for formal submission.

3.4.1 M901A1 Configuration Issues. The following configuration issues have been identified on the M901A1 Turrets. Current configuration replacements parts or excess USMC turret parts shall be used on the converted turrets.

- Elevation Cam (Switch, Rotary) – USMC Elevation Cam shall be used.
- Wiring Harnesses – Non-potted style connector cables shall be used.
- Hatch Latch – Locking style Hatch Latch shall be used.
- Vision Block Blackout Covers – USMC style vision Block Blackout Covers shall be used.
- Gunners Hatch – Non-weld line visible Hatch shall be used.
- Elevation Cylinder Cover – Non-welded bracket style Cover shall be used.
- Track & Slew Brakes – New style brakes shall be used. (NSN 6110-01-053-4811, P/N 12265502-1 and NSN 6110-01-050-5623, P/N 12265502-2)

3.4.2 Approved Sources for Hardware. The use of hardware from non-approved sources in support of the USMC Family of Light Armored Vehicles is not allowed. The mechanism to address deviation is the formal staffing of a Request For Deviation (RFD) per paragraph 3.4 (b). Upon receipt of the RFD, PMOLAV will analyze the issue relative to cost, schedule, performance, and risk.

3.5 Packaging, Handling, Storage and Transportation (PHS&T)

3.5.1 Packaging. The Contractor/Converter shall be responsible for the preservation and packaging (P&P) of the SLEP and OIF converted turret(s), which shall be installed on a locally fabricated shipping stand per TI 08652-25/1. P&P shall be in accordance with the Level "B" requirements of MIL-STD-2073-1D(1). The launcher shall be P&Pd and strapped to the shipping stand. Removed components and hardware shall be P&Pd (boxed) and also stowed within the shipping stand.

3.5.2 Storage. Converted turrets shall be placed in covered storage under Project Code PHA for short-term storage prior to shipment and installation at fleet locations. Length of post conversion storage requirements shall be determined based on turret conversion schedule and fleet installation activities. Storage shall be in accordance with the requirements of MCO 4450.14, Joint Service Manual: Storage and Materials Handling.

3.5.3 Marking for shipment and storage shall be in accordance with the requirements of MIL-STD-129, DoD Standard Practice: Military Marking for Shipment and Storage.

3.5.4 The Marine Corps will provide the Contractor or shipper with the delivery destination(s) for the subject equipment. The Contractor/Converter/Shipper shall be responsible for arranging for the shipment of the equipment to the pre-designated site(s). The Marine Corps will be responsible for all transportation costs associated with shipping the subject equipment to and from the conversion facility.

Statement Of Work for the M901A1 Turret Conversion to the LAV-AT Configuration

TOTAL COST PARTS

[illegible]

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____ <input checked="" type="checkbox"/>
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D. SYSTEM/ITEM LAV-AT Turret	E. CONTRACT/PR NO.	F. CONTRACTOR
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1. DATA ITEM NO.	2. TITLE OF DATA ITEM Request For Deviation	3. SUBTITLE Configuration Management
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4. AUTHORITY (Data Acquisition Document No.) DI-CMAN-80640C	5. CONTRACT REFERENCE SOW 3.4	6. REQUIRING OFFICE MCLCA (566-1)
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7. DD 250 REQ NO	9. DIST STATEMENT REQUIRED A	10. FREQUENCY ASREQ	12. DATE OF FIRST SUBMISSION ASREQ	14. DISTRIBUTION								
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16. REMARKS Blk 4: MEARS RFD text files shall be submitted electronically using MICROSOFT (.doc) or ADOBE (.pdf) formatted software products. Blk 10/Blk 12: RFDs shall be submitted to obtain authorization to deliver nonconforming material or processes which do not meet prescribed configuration documentation. Blk 14: RFD submission notification shall be sent to terra.jowers@usmc.mil MEARS RFD accompanying figures shall be created using a MICROSOFT formatted software or CCITT Group 4 graphic file with a minimum density of 600 dpi. Point of contact for MEARS Create questions may be directed to Ann Jowers at DSN 567-6055 or terra.jowers@usmc.mil. Distribution statement A: Approved for public release. Distribution unlimited.	PM LAV	0	0	0
	MCLCA (566-1)	0	1	0

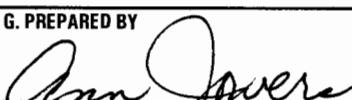
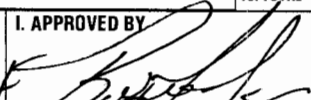
Blk 10/Blk 12: RFDs shall be submitted to obtain authorization to deliver nonconforming material or processes which do not meet prescribed configuration documentation.

Blk 14: RFD submission notification shall be sent to terra.jowers@usmc.mil

MEARS RFD accompanying figures shall be created using a MICROSOFT formatted software or CCITT Group 4 graphic file with a minimum density of 600 dpi.

Point of contact for MEARS Create questions may be directed to Ann Jowers at DSN 567-6055 or terra.jowers@usmc.mil.

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G. PREPARED BY 	H. DATE 4 Oct 2004	I. APPROVED BY 	J. DATE 10-6-04
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DD FORM 1423-1 AUG 96 (EG)

PREVIOUS EDITION MAY BE USED

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17. PRICE GROUP
18. ESTIMATED TOTAL PRICE